

AMENDMENTS TO THE CLAIMS

1. (previously presented) In an electronic device having a graphical modeling and execution environment, said graphical modeling and execution environment including at least one graphical model, a method comprising:

providing an automatic code generator to create source code that implements functionality of said at least one graphical model and that corresponds to data referenced by said at least one graphical model;

providing a predefined storage class in said graphical modeling and execution environment, said predefined storage class specifying a first manner in which said automatic code generator creates said source code corresponding to said data referenced by said at least one graphical model in said graphical modeling and execution environment;

providing a user interface with a plurality of selectable parameters;

defining a custom storage class in said graphical modeling and execution environment utilizing parameters selected by a user from said plurality of selectable parameters, said custom storage class specifying a second manner in which said automatic code generator creates source code corresponding to said data referenced by said at least one graphical model in said graphical modeling and execution environment, said second manner differing from said first manner; and

generating source code implementing said functionality of said at least one graphical model using said automatic code generator, said generating comprising:

using said custom storage class to generate source code corresponding to said data referenced by said at least one graphical model.

2. (previously presented) The method of claim 1, further comprising:

providing a view of salient aspects of said source code generated by said automatic code generator utilizing said user-selected parameters.

3. (currently amended) The method of claim 2, further comprising:

changing said ~~user-selected~~ user-selected parameters for said custom storage class in said user interface; and

adjusting said source code generated by said automatic code generator to reflect said change in said ~~user-selected~~ user-selected parameters.

4. (previously presented) The method of claim 3, further comprising:

displaying salient aspects of said adjusted source code in said view of salient aspects of said source code.

5. (previously presented) The method of claim 2, wherein said view of salient aspects of said source code automatically generated includes at least one token, said at least one token being symbolically representative of a non-displayed segment of said source code.

6. (previously presented) The method of claim 1, wherein said custom storage class declares macros for instances of constant data.

7. (previously presented) The method of claim 1, wherein said custom storage class declares variables for instances of constant data.

8. (previously presented) The method of claim 1, wherein said user-selected parameters control at least one of a manner in which automatically generated source code is defined, declared, accessed and addressed.

9. (previously presented) The method of claim 1, wherein said user-selected parameters include a non-portable directive to a compiler.

10. (previously presented) The method of claim 9, wherein said non-portable directive to a compiler assigns data to at least one memory location in said electronic device.

11. (previously presented) The method of claim 1, further comprising:

creating a separate header file with said automatic code generator in response to said selection of one of said plurality of user-selected parameters.

12. (previously presented) An electronic device having a modeling and execution environment with at least one graphical model, said electronic device comprising:

a processor for:

providing an automatic code generator to create source code that implements functionality of said at least one graphical model and that corresponds to data referenced by said at least one graphical model,

providing a predefined storage class specifying a first manner in which said automatic code generator creates said source code corresponding to said data referenced by said at least one graphical model in said modeling and execution environment,

defining a custom storage class in said modeling and execution environment utilizing parameters selected by a user from a plurality of selectable parameters, said custom storage class specifying a second manner in which said automatic code generator creates source code corresponding to said data referenced by said at least one graphical model in said modeling and execution environment, said second manner differing from said first manner, and

generating source code implementing said functionality of said at least one graphical model using said automatic code generator, said generating using said custom storage class to generate source code corresponding to said data referenced by said at least one graphical model; and

a display device for:

displaying a user interface with said plurality of selectable parameters for said custom storage class, and

displaying a view of salient aspects of said source code generated by said automatic code generator utilizing said user-selected parameters.

13. (currently amended) The electronic device of claim 12, wherein said ~~user-selected-user-~~selected parameters for said custom storage class in said user interface are changed and said source code generated by said automatic code generator is adjusted to reflect said change in ~~user-selected-user-selected~~ parameters.

14. (previously presented) The electronic device of claim 13, wherein said adjusted source code is displayed in said view of salient aspects of said source code.

15. (previously presented) The electronic device of claim 12, wherein said view of salient aspects of said source code includes at least one token, said at least one token being symbolically representative of a non-displayed segment of code.

16. (previously presented) A computer-readable medium for use in an electronic device having a graphical modeling and execution environment, said graphical modeling and execution environment including at least one graphical model, said computer-readable medium storing computer-executable instructions for:

- providing an automatic code generator to create source code that implements functionality of said at least one graphical model and that corresponds to data referenced by said at least one graphical model;

- providing a predefined storage class in said graphical modeling and execution environment, said predefined storage class specifying a first manner in which said automatic code generator creates said source code corresponding to said data referenced by said at least one graphical model in said graphical modeling and execution environment;

- providing a user interface with a plurality of selectable parameters;

- defining a custom storage class in said graphical modeling and execution environment utilizing parameters selected by a user from said plurality of selectable parameters, said custom storage class specifying a second manner in which said automatic code generator creates source code corresponding to said data referenced by said at least one graphical model in said graphical modeling and execution environment, said second manner differing from said first manner; and

- generating source code implementing said functionality of said at least one graphical model using said automatic code generator, said generating comprising:

- using said custom storage class to generate source code corresponding to said data referenced by said at least one graphical model.

17. (previously presented) The computer-readable medium of claim 16, further storing computer-executable instructions for:

- providing a view of salient aspects of said source code generated by said automatic code generator utilizing said user-selected parameters.

18. (currently amended) The computer-readable medium of claim 17, further storing computer-executable instructions for:

changing said ~~user-selected~~ user-selected parameters for said custom storage class in said user interface; and

adjusting said source code generated by said automatic code generator to reflect said change in ~~user-selected~~ user-selected parameters.

19. (previously presented) The computer-readable medium of claim 18, further storing computer-executable instructions for:

displaying said adjusted source code in said view of salient aspects of said source code.

20. (previously presented) The computer-readable medium of claim 17, wherein said view of salient aspects of said source code automatically generated includes at least one token, said at least one token being symbolically representative of a non-displayed segment of said source code.

21. (previously presented) The computer-readable medium of claim 16, wherein said custom storage class declares macros for instances of constant data.

22. (previously presented) The computer-readable medium of claim 16, wherein said custom storage class declares variables for instances of constant data.

23. (previously presented) The computer-readable medium of claim 16, wherein said user-selected parameters control at least one of a manner in which automatically generated source code is defined, declared, accessed and addressed.

24. (previously presented) The computer-readable medium of claim 16, wherein said user-selected parameters include a non-portable directive to a compiler.

25. (previously presented) The computer-readable medium of claim 24, wherein said non-portable directive to a compiler assigns data to at least one memory location in said electronic device.

26. (previously presented) The computer-readable medium of claim 16, further storing computer-executable instructions for:

creating a separate header file with said automatic code generator in response to said selection of one of said plurality of user-selected parameters.